GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 2, 2003, 11:01:37 ; Search time 54.1833 Seconds
(without alignments)
3519.551 Million cell updates/sec

Title: US-09-874-162A-5
Perfect score: 3885
Sequence: 1 MAPQKHGGGGGGGSGPSAGS.....KALETDSVSGVSKQSKKQKL 739

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	3885	100.0	803	4	Q15022	Q15022 homo sapien
2	3878	99.8	739	4	Q96BD9	Q96bd9 homo sapien
3	1177	30.3	855	5	Q9VW55	Q9vw55 drosophila
4	1177	30.3	900	5	Q9NJG9	Q9njg9 drosophila
5	550	14.2	114	11	Q99L07	Q99107 mus musculu
6	238.5	6.1	626	10	Q8L6Y4	Q8l6y4 arabidopsis
7	236	6.1	631	10	Q93V59	Q93v59 arabidopsis
8	221	5.7	445	10	Q8W5B2	Q8w5b2 arabidopsis
9	217	5.6	440	10	Q94CF5	Q94cf5 arabidopsis
10	190	4.9	692	10	Q9ZNT9	Q9znt9 arabidopsis
11	180	4.6	632	10	Q9ZQP0	Q9zqp0 arabidopsis
12	171	4.4	570	13	Q8AWB3	Q8awb3 lampetra fl
13	169.5	4.4	1745	10	Q9MAK1	Q9mak1 arabidopsis
14	166.5	4.3	620	5	O62007	O62007 branchiosto
15	165	4.2	2359	5	Q8I519	Q8i519 plasmodium
16	164	4.2	478	13	Q98TQ7	Q98tq7 lampetra fl
17	162.5	4.2	1390	4	Q9ULU8	Q9ulu8 homo sapien
18	162	4.2	1274	4	Q8NFR0	Q8nfr0 homo sapien
19	161	4.1	342	5	Q9VKR8	Q9vkr8 drosophila
20	158.5	4.1	730	10	Q9LP25	Q9lp25 arabidopsis
21	158	4.1	1103	5	Q9VY72	Q9vy72 drosophila
22	156.5	4.0	1011	2	Q9AHL0	Q9ahl0 borrelia bu
23	156	4.0	620	5	O62004	O62004 branchiosto
24	155	4.0	987	10	Q8LIX8	Q8lix8 oryza sativ
25	154.5	4.0	1081	11	Q8C7Q2	Q8c7q2 mus musculu
26	154.5	4.0	1289	11	Q62717	Q62717 rattus norv
27	154	4.0	629	13	Q90WR5	Q90wr5 lampetra fl
28	153	3.9	433	13	Q910C2	Q910c2 rana catesb
29	153	3.9	558	13	Q9PUB5	Q9pub5 brachydanio
30	153	3.9	738	5	O02402	O02402 pinctada fu
31	153	3.9	1777	5	Q8I3P4	Q8i3p4 plasmodium
32	152	3.9	427	5	Q95TA5	Q95ta5 drosophila
33	152	3.9	1422	10	Q9ZUR3	Q9zur3 arabidopsis
34	151.5	3.9	393	5	Q18880	Q18880 caenorhabdi
35	151	3.9	2165	4	Q8NFD5	Q8nfd5 homo sapien
36	150.5	3.9	618	11	Q8CIS9	Q8cis9 rattus norv
37	150	3.9	1957	4	Q8IZY8	Q8izy8 homo sapien
38	149.5	3.8	2639	5	O76786	O76786 antheraea p
39	149	3.8	284	4	Q9H524	Q9h524 homo sapien
40	149	3.8	512	4	Q9Y6P1	Q9y6p1 homo sapien
41	149	3.8	706	4	Q9UI36	Q9ui36 homo sapien
42	149	3.8	1189	5	Q8I825	Q8i825 dictyosteli
43	148.5	3.8	1163	5	Q8IKP5	Q8ikp5 plasmodium
44	148.5	3.8	1611	10	Q9SU69	Q9su69 arabidopsis
45	148	3.8	847	4	Q8IXI9	Q8ixi9 homo sapien

ALIGNMENTS

```
RESULT 1
Q15022
ID   Q15022       PRELIMINARY;      PRT;   803 AA.
AC   Q15022;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein KIAA0160 (Fragment).
GN   KIAA0160.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96127530; PubMed=8590280;
RA   Nagase T., Seki N., Tanaka A., Ishikawa K., Nomura N.;
RT   "Prediction of the coding sequences of unidentified human genes. IV.
RT   The coding sequences of 40 new genes (KIAA0121-KIAA0160) deduced by
RT   analysis of cDNA clones from human cell line KG-1.";
RL   DNA Res. 2:167-174(1995).
DR   EMBL; D63881; BAA09931.1; -.
DR   InterPro; IPR007087; Znf_C2H2.
DR   SMART; SM00355; ZnF_C2H2; 1.
DR   PROSITE; PS00028; ZINC_FINGER_C2H2_1; 1.
KW   Hypothetical protein.
FT   NON_TER       1       1
SQ   SEQUENCE   803 AA;  89963 MW;  CDFB901A35F29A7C CRC64;

  Query Match           100.0%;  Score 3885;  DB 4;  Length 803;
  Best Local Similarity  100.0%;  Pred. No. 1.4e-263;
  Matches  739;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MAPQKHGGGGGGGSGPSAGSGGGGGFGGSAAVAAATASGGKSGGGSCGGGGSYSASSSSSA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          65 MAPQKHGGGGGGGSGPSAGSGGGGGFGGSAAVAAATASGGKSGGGSCGGGGSYSASSSSSA 124

Qy          61 AAAAGAAVLPVKKPKMEHVQADHELFLQAFEKPTQIYRFLRTRNLIAPIFLHRTLTYMSH 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        125 AAAAGAAVLPVKKPKMEHVQADHELFLQAFEKPTQIYRFLRTRNLIAPIFLHRTLTYMSH 184

Qy        121 RNSRTNIKRKTFKVDDMLSKVEKMKGEQESHSLSAHLQLTFTGFFHKNDKPSPNSENEQN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        185 RNSRTNIKRKTFKVDDMLSKVEKMKGEQESHSLSAHLQLTFTGFFHKNDKPSPNSENEQN 244

Qy        181 SVTLEVLLVKVCHKKRKDVSCPIRQVPTGKKQVPLIPDLNQTKPGNFPSLAVSSNEFEPS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        245 SVTLEVLLVKVCHKKRKDVSCPIRQVPTGKKQVPLIPDLNQTKPGNFPSLAVSSNEFEPS 304

Qy        241 NSHMVKSYSLLFRVTRPGRREFNGMINGETNENIDVNEELPARRKRNREDGEKTFVAQMT 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        305 NSHMVKSYSLLFRVTRPGRREFNGMINGETNENIDVNEELPARRKRNREDGEKTFVAQMT 364

Qy        301 VFDKNRRLQLLDGEYEVAMQEMEECPISKKRATWETILDGKRLPPFETFSQGPTLQFTLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        365 VFDKNRRLQLLDGEYEVAMQEMEECPISKKRATWETILDGKRLPPFETFSQGPTLQFTLR 424

Qy        361 WTGETNDKSTAPIAKPLATRNSESLHQENKPGSVKPTQTIAVKESLTTDLQTRKEKDTPN 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        425 WTGETNDKSTAPIAKPLATRNSESLHQENKPGSVKPTQTIAVKESLTTDLQTRKEKDTPN 484

Qy        421 ENRQKLRIFYQFLYNNNTRQQTEARDDLHCPWCTLNCRKLYSLLKHLKLCHSRFIFNYVY 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        485 ENRQKLRIFYQFLYNNNTRQQTEARDDLHCPWCTLNCRKLYSLLKHLKLCHSRFIFNYVY 544

Qy        481 HPKGARIDVSINECYDGSYAGNPQDIHRQPGFAFSRNGPVKRTPITHILVCRPKRTKASM 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        545 HPKGARIDVSINECYDGSYAGNPQDIHRQPGFAFSRNGPVKRTPITHILVCRPKRTKASM 604

Qy        541 SEFLESEDGEVEQQRTYSSGHNRLYFHSDTCLPLRPQEMEVDSEDEKDPEWLREKTITQI 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        605 SEFLESEDGEVEQQRTYSSGHNRLYFHSDTCLPLRPQEMEVDSEDEKDPEWLREKTITQI 664

Qy        601 EEFSDVNEGEKEVMKLWNLHVMKHGFIADNQMNHACMLFVENYGQKIIKKNLCRNFMLHL 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        665 EEFSDVNEGEKEVMKLWNLHVMKHGFIADNQMNHACMLFVENYGQKIIKKNLCRNFMLHL 724

Qy        661 VSMHDFNLISIMSIDKAVTKLREMQQKLEKGESASPANEEITEEQNGTANGFSEINSKEK 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        725 VSMHDFNLISIMSIDKAVTKLREMQQKLEKGESASPANEEITEEQNGTANGFSEINSKEK 784

Qy        721 ALETDSVSGVSKQSKKQKL 739
              |||||||||||||||||||
Db        785 ALETDSVSGVSKQSKKQKL 803
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RESULT 2
Q96BD9
ID   Q96BD9      PRELIMINARY;      PRT;   739 AA.
AC   Q96BD9;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Joined to JAZF1.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Uterus;
RA   Strausberg R.;
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC015704; AAH15704.1; -.
DR   InterPro; IPR007087; Znf_C2H2.
DR   SMART; SM00355; ZnF_C2H2; 1.
DR   PROSITE; PS00028; ZINC_FINGER_C2H2_1; 1.
SQ   SEQUENCE   739 AA;  83054 MW;  A8830EBC3FD38D56 CRC64;

  Query Match           99.8%;  Score 3878;  DB 4;  Length 739;
  Best Local Similarity 99.9%;  Pred. No. 3.9e-263;
  Matches  738;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;
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Qy          1 MAPQKHGGGGGGGSGPSAGSGGGGFGGSAAVAAATASGGKSGGGSCGGGGSYSASSSSSA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MAPQKHGGGGGGGSGPSAGSGGGGFGGSAAVAAATASGGKSGGGSCGGGGSYSASSSSSA 60

Qy         61 AAAAGAAVLPVKKPKMEHVQADHELFLQAFEKPTQIYRFLRTRNLIAPIFLHRTLTYMSH 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AAAAGAAVLPVKKPKMEHVQADHELFLQAFEKPTQIYRFLRTRNLIAPIFLHRTLTYMSH 120

Qy        121 RNSRTNIKRKTFKVDDMLSKVEKMKGEQESHSLSAHLQLTFTGFFHKNDKPSPNSENEQN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 RNSRTNIKRKTFKVDDMLSKVEKMKGEQESHSLSAHLQLTFTGFFHKNDKPSPNSENEQN 180

Qy        181 SVTLEVLLVKVCHKKRKDVSCPIRQVPTGKKQVPLIPDLNQTKPGNFPSLAVSSNEFEPS 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SVTLEVLLVKVCHKKRKDVSCPIRQVPTGKKQVPLNPDLNQTKPGNFPSLAVSSNEFEPS 240

Qy        241 NSHMVKSYSLLFRVTRPGRREFNGMINGETNENIDVNEELPARRKRNREDGEKTFVAQMT 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 NSHMVKSYSLLFRVTRPGRREFNGMINGETNENIDVNEELPARRKRNREDGEKTFVAQMT 300

Qy        301 VFDKNRRLQLLDGEYEVAMQEMEECPISKKRATWETILDGKRLPPFETFSQGPTLQFTLR 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 VFDKNRRLQLLDGEYEVAMQEMEECPISKKRATWETILDGKRLPPFETFSQGPTLQFTLR 360

Qy        361 WTGETNDKSTAPIAKPLATRNSESLHQENKPGSVKPTQTIAVKESLTTDLQTRKEKDTPN 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 WTGETNDKSTAPIAKPLATRNSESLHQENKPGSVKPTQTIAVKESLTTDLQTRKEKDTPN 420

Qy        421 ENRQKLRIFYQFLYNNNTRQQTEARDDLHCPWCTLNCRKLYSLLKHLKLCHSRFIFNYVY 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ENRQKLRIFYQFLYNNNTRQQTEARDDLHCPWCTLNCRKLYSLLKHLKLCHSRFIFNYVY 480

Qy        481 HPKGARIDVSINECYDGSYAGNPQDIHRQPGFAFSRNGPVKRTPITHILVCRPKRTKASM 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 HPKGARIDVSINECYDGSYAGNPQDIHRQPGFAFSRNGPVKRTPITHILVCRPKRTKASM 540

Qy        541 SEFLESEDGEVEQQRTYSSGHNRLYFHSDTCLPLRPQEMEVDSEDEKDPEWLREKTITQI 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 SEFLESEDGEVEQQRTYSSGHNRLYFHSDTCLPLRPQEMEVDSEDEKDPEWLREKTITQI 600

Qy        601 EEFSDVNEGEKEVMKLWNLHVMKHGFIADNQMNHACMLFVENYGQKIIKKNLCRNFMLHL 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 EEFSDVNEGEKEVMKLWNLHVMKHGFIADNQMNHACMLFVENYGQKIIKKNLCRNFMLHL 660

Qy        661 VSMHDFNLISIMSIDKAVTKLREMQQKLEKGESASPANEEITEEQNGTANGFSEINSKEK 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 VSMHDFNLISIMSIDKAVTKLREMQQKLEKGESASPANEEITEEQNGTANGFSEINSKEK 720

Qy        721 ALETDSVSGVSKQSKKQKL 739
              |||||||||||||||||||
Db        721 ALETDSVSGVSKQSKKQKL 739
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RESULT 3
Q9VW55
ID   Q9VW55      PRELIMINARY;      PRT;   855 AA.
AC   Q9VW55; Q8T9D8;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   CG8013 protein (SD04959p).
GN   SU(Z)12 OR CG8013.
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Berkeley;
RX   MEDLINE=20196006; PubMed=10731132;
RA   Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
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                     ||||||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||
Db        309 ENIDVNEELPARRKRNREDGEKTFVAQMTVFDKNRRLQLLDGEYEVAMXEMEECPISKKR 368

Qy        332 ATWETILDGKRLPPFETFSQGPTLQFTLRWTGETNDKSTAPIAKPLATRNSESLHQENKP 391
                     ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        369 ATWETILDGKRLPPFETFSQGPTLQFTLRWTGETNDKSTAPIAKPLATRNSESLHQENKP 428

Qy        392 GSVKPTQTIAVKESLTTDLQTRKEKDTPNENRQKLRIFYQFLYNNNTRQQTEARDDLHCP 451
                     ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        429 GSVKPTQTIAVKESLTTDLQTRKEKDTPNENRQKLRIFYQFLYNNNTRQQTEARDDXXXX 488

Qy        452 WCTLNCRKLYSLLKHLKLCHSRFIFNYVYHPKGARIDVSINECYDGSYAGNPQDIHRQPG 511
                                ||||||||||||||||||||||||||||||||||||||||||||
Db        489 XXXXXXXXXXXXXXXXXXXXSRFIFNYVYHPKGARIDVSINECYDGSYAGNPQDIHRQPG 548

Qy        512 FAFSRNGPVKRTPITHILVCRPKRTKASMSEFLESEDGEVEQQRTYSSGHNRLYFHSDTC 571
                     ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        549 FAFSRNGPVKRTPITHILVCRPKRTKASMSEFLESEDGEVEQQRTYSSGHNRLYFHSDTC 608

Qy        572 LPLRPQEMEVDSEDEKDPEWLREKTITQIEEFSDVNEGEKEVMKLWNLHVMKHGFIADNQ 631
                     ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        609 LPLRPQEMEVDSEDEKDPEWLREKTITQIEEFSDVNEGEKEVMKLWNLHVMKHGFIADNQ 668

Qy        632 MNHACMLFVENYGQKIIKKNLCRNFMLHLVSMHDFNLISIMSIDKAVTKLREMQQKLEKG 691
                     ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        669 MNHACMLFVENYGQKIIKKNLCRNFMLHLVSMHDFNLISIMSIDKAVTKLREMQQKLEKG 728

Qy        692 ESASPANEEITEEQNGTANGFSEINSKEKALETDSVSGVSKQSKKQKL 739
                     |||||||||||||||||||||||||||||||||||||||||||
Db        729 ESASPANEEITEEQNGTANGFSEINSKEKALETDSVSGVSKQSKKQKL 776


RESULT 4
AAU15978
ID   AAU15978 standard; Protein; 388 AA.
XX
AC   AAU15978;
XX
DT   07-NOV-2001  (first entry)
XX
DE   Human novel secreted protein, Seq ID 931.
XX
KW   Human; immunosuppressive; antiarthritic; antirheumatic;
KW   cytostatic; cardiant; vasotropic; cerebroprotective; nootropic;
KW   neuroprotective; antibacterial; virucide; fungicide; opthalmalogical;
KW   vulnerary; secreted protein; rheumatoid arthritis;
KW   hyperproliferative disorder; cardiovascular disorder; cardiac arrest;
KW   cerebrovascular disorder; cerebral ischaemia; angiogenesis;
KW   nervous system disorder; Alzheimer's disease; infection; ocular disorder;
KW   corneal infection; wound healing; epithelial cell proliferation;
KW   skin ageing; food additive; preservative; antiproliferative.
XX
OS   Homo sapiens.
XX
PN   WO200155322-A2.
XX
PD   02-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01341.
XX
PR   31-JAN-2000; 2000US-0179065.
PR   04-FEB-2000; 2000US-0180628.
PR   24-FEB-2000; 2000US-0184664.
PR   02-MAR-2000; 2000US-0186350.
PR   16-MAR-2000; 2000US-0189874.
PR   17-MAR-2000; 2000US-0190076.
PR   18-APR-2000; 2000US-0198123.
PR   19-MAY-2000; 2000US-0205515.
PR   07-JUN-2000; 2000US-0209467.
PR   28-JUN-2000; 2000US-0214886.
PR   30-JUN-2000; 2000US-0215135.
PR   07-JUL-2000; 2000US-0216647.
PR   07-JUL-2000; 2000US-0216880.
PR   11-JUL-2000; 2000US-0217487.
PR   11-JUL-2000; 2000US-0217496.
PR   14-JUL-2000; 2000US-0218290.
PR   26-JUL-2000; 2000US-0220963.
PR   26-JUL-2000; 2000US-0220964.
PR   14-AUG-2000; 2000US-0224518.
PR   14-AUG-2000; 2000US-0224519.
PR   14-AUG-2000; 2000US-0225213.
PR   14-AUG-2000; 2000US-0225214.
PR   14-AUG-2000; 2000US-0225266.
PR   14-AUG-2000; 2000US-0225267.
PR   14-AUG-2000; 2000US-0225268.
PR   14-AUG-2000; 2000US-0225270.
PR   14-AUG-2000; 2000US-0225447.
PR   14-AUG-2000; 2000US-0225757.
PR   14-AUG-2000; 2000US-0225758.
PR   14-AUG-2000; 2000US-0225759.
PR   18-AUG-2000; 2000US-0226279.
PR   22-AUG-2000; 2000US-0226681.
PR   22-AUG-2000; 2000US-0226868.
PR   22-AUG-2000; 2000US-0227182.
PR   23-AUG-2000; 2000US-0227009.
PR   30-AUG-2000; 2000US-0228924.
PR   01-SEP-2000; 2000US-0229287.
PR   01-SEP-2000; 2000US-0229343.
PR   01-SEP-2000; 2000US-0229344.
PR   01-SEP-2000; 2000US-0229345.
PR   05-SEP-2000; 2000US-0229509.
PR   05-SEP-2000; 2000US-0229513.
PR   06-SEP-2000; 2000US-0230437.
PR   06-SEP-2000; 2000US-0230438.
PR   08-SEP-2000; 2000US-0231242.
PR   08-SEP-2000; 2000US-0231243.
PR   08-SEP-2000; 2000US-0231244.
PR   08-SEP-2000; 2000US-0231413.
PR   08-SEP-2000; 2000US-0231414.
PR   08-SEP-2000; 2000US-0232080.
PR   08-SEP-2000; 2000US-0232081.
PR   12-SEP-2000; 2000US-0231968.
PR   14-SEP-2000; 2000US-0232397.
PR   14-SEP-2000; 2000US-0232398.
PR   14-SEP-2000; 2000US-0232399.
PR   14-SEP-2000; 2000US-0232400.
PR   14-SEP-2000; 2000US-0232401.
PR   14-SEP-2000; 2000US-0233063.
PR   14-SEP-2000; 2000US-0233064.
PR   14-SEP-2000; 2000US-0233065.
PR   21-SEP-2000; 2000US-0234223.
PR   21-SEP-2000; 2000US-0234274.
PR   25-SEP-2000; 2000US-0234997.
PR   25-SEP-2000; 2000US-0234998.
PR   26-SEP-2000; 2000US-0235484.
PR   27-SEP-2000; 2000US-0235834.
PR   27-SEP-2000; 2000US-0235836.
PR   29-SEP-2000; 2000US-0236327.
PR   29-SEP-2000; 2000US-0236367.
PR   29-SEP-2000; 2000US-0236368.
PR   29-SEP-2000; 2000US-0236369.
PR   29-SEP-2000; 2000US-0236370.
PR   02-OCT-2000; 2000US-0236802.
PR   02-OCT-2000; 2000US-0237037.
PR   02-OCT-2000; 2000US-0237038.
PR   02-OCT-2000; 2000US-0237039.
PR   02-OCT-2000; 2000US-0237040.
PR   13-OCT-2000; 2000US-0239935.
PR   13-OCT-2000; 2000US-0239937.
PR   20-OCT-2000; 2000US-0240960.
PR   20-OCT-2000; 2000US-0241221.
PR   20-OCT-2000; 2000US-0241785.
PR   20-OCT-2000; 2000US-0241786.
PR   20-OCT-2000; 2000US-0241787.
PR   20-OCT-2000; 2000US-0241808.
PR   20-OCT-2000; 2000US-0241809.
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PR 20-OCT-2000; 2000US-0241826.
PR 01-NOV-2000; 2000US-0244617.
PR 08-NOV-2000; 2000US-0246474.
PR 08-NOV-2000; 2000US-0246475.
PR 08-NOV-2000; 2000US-0246476.
PR 08-NOV-2000; 2000US-0246477.
PR 08-NOV-2000; 2000US-0246478.
PR 08-NOV-2000; 2000US-0246523.
PR 08-NOV-2000; 2000US-0246524.
PR 08-NOV-2000; 2000US-0246525.
PR 08-NOV-2000; 2000US-0246526.
PR 08-NOV-2000; 2000US-0246527.
PR 08-NOV-2000; 2000US-0246528.
PR 08-NOV-2000; 2000US-0246532.
PR 08-NOV-2000; 2000US-0246609.
PR 08-NOV-2000; 2000US-0246610.
PR 08-NOV-2000; 2000US-0246611.
PR 08-NOV-2000; 2000US-0246613.
PR 17-NOV-2000; 2000US-0249207.
PR 17-NOV-2000; 2000US-0249208.
PR 17-NOV-2000; 2000US-0249209.
PR 17-NOV-2000; 2000US-0249210.
PR 17-NOV-2000; 2000US-0249211.
PR 17-NOV-2000; 2000US-0249212.
PR 17-NOV-2000; 2000US-0249213.
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PR 17-NOV-2000; 2000US-0249216.
PR 17-NOV-2000; 2000US-0249217.
PR 17-NOV-2000; 2000US-0249218.
PR 17-NOV-2000; 2000US-0249244.
PR 17-NOV-2000; 2000US-0249245.
PR 17-NOV-2000; 2000US-0249264.
PR 17-NOV-2000; 2000US-0249265.
PR 17-NOV-2000; 2000US-0249297.
PR 17-NOV-2000; 2000US-0249299.
PR 17-NOV-2000; 2000US-0249300.
PR 01-DEC-2000; 2000US-0250160.
PR 01-DEC-2000; 2000US-0250391.
PR 05-DEC-2000; 2000US-0251030.
PR 05-DEC-2000; 2000US-0251988.
PR 05-DEC-2000; 2000US-0256719.
PR 06-DEC-2000; 2000US-0251479.
PR 08-DEC-2000; 2000US-0251856.
PR 08-DEC-2000; 2000US-0251868.
PR 08-DEC-2000; 2000US-0251869.
PR 08-DEC-2000; 2000US-0251989.
PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-488783/53.
DR N-PSDB; AAS25965.
XX
PT New nucleic acid molecules encoding 461 human secreted proteins for
PT diagnosing, preventing, treating or ameliorating medical conditions and
PT used as food additives or preservatives -
XX
PS Claim 11; SEQ ID No 931; 980pp; English.
XX
CC The invention relates to isolated nucleic acid molecules and their
CC encoded secreted proteins. The nucleic acids and proteins are used to
CC prevent, treat or ameliorate a medical condition in e.g. humans, mice,
CC rabbits, goats, horses, cats, dogs, chickens or sheep. They
CC are also used in diagnosing a pathological condition or susceptibility
CC to a pathological condition. Antibodies to the proteins can also
CC be used in alleviating symptoms associated with the disorders and in
CC diagnostic immunoassays e.g. radioimmunoassays or enzyme linked
CC immunosorbant assays (ELISA). Disorders which are diagnosed or treated
CC include autoimmune diseases e.g. rheumatoid arthritis,
CC hyperproliferative disorders e.g. neoplasms of the breast or liver,
CC cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders
CC e.g. cerebral ischaemia, angiogenesis, nervous system disorders e.g.
CC Alzheimer's disease, infections caused by bacteria, viruses and fungi
CC and ocular disorders e.g. corneal infection, and many other
CC disorders listed in the specification. The polypeptides can also
CC be used to aid wound healing and epithelial cell proliferation, to
CC prevent skin aging due to sunburn, to maintain organs before
CC transplantation, for supporting cell culture of primary tissues, to
CC regenerate tissues and in chemotaxis. The polypeptides can also be used
CC as a food additive or preservative to increase or decrease storage
CC capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC minerals, cofactors and other nutritional components. The present
CC sequence represents a novel secreted protein of the invention.

Query Match 52.6%; Score 2043; DB 22; Length 388;
Best Local Similarity 99.5%; Pred. No. 2.2e-155;
Matches 386; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy        352 GPTLQFTLRWTGETNDKSTAPIAKPLATRNSESLHQENKPGSVKPTQTIAVKESLTTDLQ 411
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 GPTLQFTLRWTGETNDKSTAPIAKPLATRNSESLHQENKPGSVKPTQTIAVKESLTTDLQ 60

Qy        412 TRKEKDTPNENRQKLRIFYQFLYNNNTRQQTEARDDLHCPWCTLNCRKLYSLLKHLKLCH 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TRKEKDTPNENRQKLRIFYQFLYNNNTRQQTEARDDLHCPWCTLNCRKLYSLLKHLKLCH 120

Qy        472 SRFIFNYVYHPKGARIDVSINECYDGSYAGNPQDIHRQPGFAFSRNGPVKRTPITHILVC 531
              |||||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||
Db        121 SRFIFNYVYHPKGARIDVSINEGYDGSYAGNPQDIHRQPGFAFSRNGPVKRTPITHILVC 180

Qy        532 RPKRTKASMSEFLESEDGEVEQQRTYSSGHNRLYFHSDTCLPLRPQEMEVDSEDEKDPEW 591
              ||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||||
Db        181 RPKRTKASMSEFLESEDGEVEQQRTYSSGHNRLYFHRDTCLPLRPQEMEVDSEDEKDPEW 240

Qy        592 LREKTITQIEEFSDVNEGEKEVMKLWNLHVMKHGFIADNQMNHACMLFVENYGQKIIKKN 651
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LREKTITQIEEFSDVNEGEKEVMKLWNLHVMKHGFIADNQMNHACMLFVENYGQKIIKKN 300

Qy        652 LCRNFMLHLVSMHDFNLISIMSIDKAVTKLREMQQKLEKGESASPANEEITEEQNGTANG 711
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LCRNFMLHLVSMHDFNLISIMSIDKAVTKLREMQQKLEKGESASPANEEITEEQNGTANG 360

Qy        712 FSEINSKEKALETDSVSGVSKQSKKQKL 739
              |||||||||||||||||||||||||||||
Db        361 FSEINSKEKALETDSVSGVSKQSKKQKL 388
```

RESULT 5
ABU55047
ID ABU55047 standard; Protein; 388 AA.
XX
AC ABU55047;
XX
DT 18-MAR-2003 (first entry)
XX
DE Human novel polypeptide #134.
XX
KW Human; neural disorder; immune system disorder; renal disorder;
KW muscular disorder; respiratory disease; reproductive disorder;
KW gastrointestinal disorder; pulmonary disorder; cardiovascular disorder;
KW hyperproliferative disorder; inflammatory disease; allergic reaction;
KW blood related disorder; cancer; immunosuppressive; antiinflammatory;
KW cardiovascular; nephrotropic; cytostatic; antiallergic; thrombolytic;
KW haemostatic; antiarteriosclerotic.
XX
OS Homo sapiens.
XX
PN US2002132753-A1.
XX
PD 19-SEP-2002.
XX

L17 ANSWER 2 OF 38 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2000169996 MEDLINE
DOCUMENT NUMBER: 20169996 PubMed ID: 10705818
TITLE: Paraffin-section detection of CD10 in 505 nonhematopoietic neoplasms. Frequent expression in renal cell carcinoma and endometrial stromal sarcoma.
AUTHOR: Chu P; Arber D A
CORPORATE SOURCE: Division of Pathology, City of Hope National Medical Center, Duarte, CA 91010, USA.
SOURCE: AMERICAN JOURNAL OF CLINICAL PATHOLOGY, **(2000 Mar)** 113 (3) 374-82.
Journal code: 0370470. ISSN: 0002-9173.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000330
Last Updated on STN: 20000330
Entered Medline: 20000323

AB We tested 505 cases of nonhematopoietic neoplasms by immunohistochemistry using a newly characterized monoclonal antibody (clone 56C6) against the CD10 antigen. CD10 was expressed widely in neoplasms of the genitourinary tract, including 41 (89%) of 46 cases of renal cell carcinoma, 13 (54%) of 24 cases of transitional cell carcinoma, and 11 (61%) of 18 cases of prostatic adenocarcinoma. In addition, 5 (100%) of 5 endometrial stromal sarcomas, 3 (60%) of 5 rhabdomyosarcomas, 7 (50%) of 14 pancreatic adenocarcinomas, 5 (45%) of 11 cases of schwannoma, and 12 (40%) of 30 cases of malignant melanoma also were positive for CD10. Similar to normal tissue, CD10 positivity was restricted to the apical surface of malignant glandular cells of well-differentiated colonic, pancreatic, and prostatic adenocarcinoma, whereas in poorly differentiated adenocarcinoma and other tumors, such as melanoma, transitional cell carcinoma, renal cell carcinoma, and endometrial stromal sarcoma, the CD10 positivity showed diffuse cytoplasmic or membranous/Golgi patterns. The monoclonal antibody clone 56C6 is a reliable marker for CD10 in paraffin immunohistochemistry after heat-induced epitope retrieval. CD10 expression in renal cell carcinoma and **endometrial stromal** sarcoma may be a useful **marker** in the differential diagnoses of these tumors because both tumors otherwise lack specific markers.

L43 ANSWER 2 OF 6 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 93353912 MEDLINE
DOCUMENT NUMBER: 93353912 PubMed ID: 1307772
TITLE: C-**myc** gene expression in stage I endometrioid adenocarcinoma of the uterus.
AUTHOR: Ambros R A
CORPORATE SOURCE: Department of Pathology, Johns Hopkins Hospital, Baltimore, Maryland.
SOURCE: MATERIA MEDICA POLONA, (1992 Apr-Jun) 24 (2) 76-8.
Journal code: 0236526. ISSN: 0025-5246.
PUB. COUNTRY: Poland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ENTRY DATE: Entered STN: 19931001
Last Updated on STN: 19931001
Entered Medline: 19930916

AB Expression of a c-**myc** proto-oncogene product known as p62 (c-**myc**) was studied in 18 cases of stage I endometrioid (typical) adenocarcinoma of the uterus by immunohistochemistry and correlated with mucin production and other pathologic features. Cytoplasmic staining of tumor cells for c-**myc** product was seen in all cases and nuclear staining in three cases. **Endometrial stromal** cells were invariably negative and myometrial nuclear staining was seen in three cases. Within the tumor itself, whereas intense staining was frequent in high grade tumors with deep myometrial and vascular invasion, faint to moderate staining was frequent in well differentiated tumors with superficial myometrial invasion. A general tendency was also seen for greater staining in the myometrial component of the tumor than in tumor located in the endometrium. Whereas staining in the latter was frequently patchy in distribution, c-**myc** expression was invariably uniform in the myometrial component. Mucin production was somewhat greater in endometrial than myometrial components but did not correlate with c-**myc** expression or other pathologic features. This study demonstrates that c-**myc** is variably expressed in endometrial carcinoma and high c-**myc** expression can be associated with populations of tumor cells selectively capable of myometrial and vascular invasion.

L6 ANSWER 7 OF 7 CANCERLIT on STN
ACCESSION NUMBER: 88288267 CANCERLIT
DOCUMENT NUMBER: 88288267 PubMed ID: 3331171
TITLE: A novel tumour marker related to the c-myc oncogene product.
AUTHOR: Chan S; Gabra H; Hill F; Evan G; Sikora K
CORPORATE SOURCE: Department of Clinical Oncology, Royal Postgraduate Medical School, Hammersmith Hospital, London, UK.
SOURCE: MOLECULAR AND CELLULAR PROBES, **(1987 Mar)** 1 (1) 73-82.
Journal code: 8709751. ISSN: 0890-8508.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: MEDLINE; Priority Journals
OTHER SOURCE: MEDLINE 88288267
ENTRY MONTH: 198808
ENTRY DATE: Entered STN: 19941107
Last Updated on STN: 19941107

AB We have studied the utility of the c-myc oncogene product as tumour marker using a set of monoclonal antibodies raised against synthetic peptides constructed from sequence data of the human c-**myc** oncoprotein. One antibody, Myc1-**9E10**, raised against the C-terminal 32 amino acids, has been shown to detect specifically the 62 kDa c-myc gene product in tumour cells. Immunoblotting of sera and urine with this antibody consistently revealed a single 40 kDa band (p40). Quantitative analysis using dilution dot immunoblotting demonstrated a considerable increase in the titre of p40 in the sera of 51 patients with a wide range of advanced solid tumours when compared with 17 healthy controls and 50 patients with non-malignant diseases. Serial measurement of the p40 titre in 12 patients with resected colorectal carcinoma shows a gradual return to normal with a half-life of 7 days. Our data suggests that p40 may be a useful new marker for monitoring tumour activity.

L8 ANSWER 1 OF 4 MEDLINE on STN
ACCESSION NUMBER: 1998438314 MEDLINE
DOCUMENT NUMBER: 98438314 PubMed ID: 9763543
TITLE: The sialomucin CD164 (MGC-24v) is an adhesive glycoprotein expressed by human hematopoietic progenitors and bone marrow **stromal** cells that serves as a potent negative regulator of hematopoiesis.
COMMENT: Comment in: Blood. 1998 Oct 15;92(8):2609-12
AUTHOR: Zannettino A C; Buhring H J; Niutta S; Watt S M; Benton M A; Simmons P J
CORPORATE SOURCE: Hanson Centre for Cancer Research, Matthew Roberts Laboratory, Institute Of Medical and Veterinary Science, Adelaide, Australia.. andrew.zannettino@imvs.sa.gov.au
SOURCE: BLOOD, (1998 Oct 15) 92 (8) 2613-28.
Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
OTHER SOURCE: GENBANK-AF106518
ENTRY MONTH: 199811
ENTRY DATE: Entered STN: 19990106
Last Updated on STN: 20000303
Entered Medline: 19981109

AB Mucin-like molecules represent an emerging family of cell surface glycoproteins expressed by cells of the hematopoietic system. We report the isolation of a cDNA clone that encodes a novel transmembrane isoform of the mucin-like glycoprotein MGC-24, expressed by both hematopoietic progenitor cells and elements of the bone marrow (BM) stroma. This molecule was clustered as CD164 at the recent workshop on human leukocyte differentiation antigens. CD164 was identified using a retroviral expression cloning strategy and two novel monoclonal antibody (MoAb) reagents, 103B2/**9E10** and 105.A5. Both antibodies detected CD164/MGC-24v protein expression by BM stroma and subpopulations of the CD34(+) cells, which include the majority of clonogenic myeloid (colony-forming unit-granulocyte-macrophage [CFU-GM]) and erythroid (blast-forming unit-erythroid [BFU-E]) progenitors and the hierarchically more primitive precursors (pre-CFU). Biochemical and functional characterization of CD164 showed that this protein represents a homodimeric molecule of approximately 160 kD. Functional studies demonstrate a role for CD164 in the adhesion of hematopoietic progenitor cells to BM **stromal** cells in vitro. Moreover, antibody ligation of CD164 on primitive hematopoietic progenitor cells characterized by the cell surface phenotype CD34(BRIGHT)CD38(-) results in the decreased recruitment of these cells into cell cycle, suggesting that CD164 represents a potent signaling molecule with the capacity to suppress hematopoietic cell proliferation.

L37 ANSWER 5 OF 21 PCTFULL COPYRIGHT 2003 Univentio on STN
ACCESSION NUMBER: 1999012965 PCTFULL ED 20020515
TITLE (ENGLISH): APRIL- A NOVEL PROTEIN WITH GROWTH EFFECTS
TITLE (FRENCH): NOUVEAUX LIGANDS DE LA FAMILLE DES TNF
INVENTOR(S): TSCHOPP, Jurg
PATENT ASSIGNEE(S): BIOGEN, INC.;
TSCHOPP, Jurg
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9912965	A2	19990318

DESIGNATED STATES
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.:	**WO 1998-US19191**	**A**	**19980911**
PRIORITY INFO.:	US 1997-60/058,786		19970912
	US 1998-60/079,384		19980326
AI	**WO 1998-US19191**	**A**	**19980911**

CLMEN. . . kb.
Northern blot analysis was performed by using Human Multiple Tissue Northern Blots
I and 11 (Clontech #7760-1 and #7759- 1), Human **Cancer** Cell Line MTN Blot
(Clontech #7757-1) and Human **Tumor** Panel Blot V (Invitrogen D3500-01). The
membranes were incubated in ExpressHyb hybridization solution (Clontech #8015-1)
io for at least I hour at. . . (pregnant uterus,
pancreatic islands). Remarkably, the remainder of the EST-clones (21 clones, 9 1 %)
were present in cDNA libraries generated from **tumors** or
tumor-derived cell lines
(Ovary **tumor**, I 1; prostate **tumor**, 3; Gessler Wilms
tumor, 1; colon carcinoma, 1;
endometrial **tumor**, 1; parathyroid **tumors**, 1;
pancreas **tumor**, 1; T-cell lymphoma, 1;
LNCAP adenocarcinorna derived cell line, 1). This prompted us to test transformed
cell lines for the expression of. . . the Burkitt's lymphorna Raji and in the melanoma G36 1. To
corroborate this finding, we measured APRIL mRNA expression levels in several
tumors and compared them to normal tissues. APRIL mRNA was abundantly detected
in thyroid carcinoma and in lymphoma, whereas in the corresponding normal tissues,
only weak or no hybridization signals were found (Fig. 2Q. In the two other **tumors**
tn
nalyzed by Northern blots (adrenal and paratold **tumors**), APRIL mRNA was not
elevated. However, in situ hybridization revealed abundant APRIL message in human
colon adenocarcinoma as compared to normal colon. . . a HA signal for protein secretion in eukaryotic cells and an N-terminal Flacy epitope

(15).
Example 2
The widespread expression of APRIL Hi **tumor** cells and tissues suggested to us
that APRIL may be associated with **tumor** growth, and we therefore incubated various
t@
tumor cell lines with purified recombinant Flacy-tacrued sAPRIL (10).
Human embryonic 293T cells, human leukemia Jurkat T-cells, human Burkitt lymphoma B-cells Raji and. . . cells might also have a growth advantage in vivo. When wild-type or mock-transfected NIH-3T3 cells were
injected into nude mice, small palpable **tumors** were observed after 5-6 weeks (1 3). In
contrast, two clones of NIH-3T3 cells stably transfected with APRIL both induced
tumors after only 3-4 weeks. After 6 weeks, mice had to be killed due to the high
tumor burden (Fig. 4Q. NIH/3T3 fibroblasts (American Type Culture Collection,
Rockville, Maryland) and the various transfectants (I x 105 cells) were suspended in 50
VI PBS and injected subcutaneously into the flank region of BALB/c nude mice
(Harlan, Zeist, Netherland). **Tumor** size was measured every three days. Mice were
age-matched (3 animals per group).
Example 3:
Isolation of a receptor binding to APRIL.
Ligands of. . . tagged
ligand. Cells with bound ligand are identified in a FACS experiment by labeling the
myc tag with an anti-myc peptide antibody (**9E10**) followed by phycoerythrin (or a
similar label) labeled anti-mouse immunoglobulin. FACS positive cells can be readily
identified and would serve as a. . .

L16 ANSWER 11 OF 12 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 94285937 MEDLINE
DOCUMENT NUMBER: 94285937 PubMed ID: 8015553
TITLE: Nonpituitary human prolactin gene transcription is independent of Pit-1 and differentially controlled in lymphocytes and in endometrial stroma.
AUTHOR: Gellersen B; Kempf R; Telgmann R; DiMattia G E
CORPORATE SOURCE: Institute for Hormone and Fertility Research, University of Hamburg, Germany.
SOURCE: MOLECULAR ENDOCRINOLOGY, **(1994 Mar)** 8 (3) 356-73.
Journal code: 8801431. ISSN: 0888-8809.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L33865
ENTRY MONTH: 199407
ENTRY DATE: Entered STN: 19940810
Last Updated on STN: 19970203
Entered Medline: 19940728

AB Expression of the human PRL (hPRL) gene in extrapituitary sites such as the uterus (decidualized endometrial stroma and myometrium) and cells of the hematopoietic lineage is directed by an alternative promoter which is located approximately 6 kilobases (kb) upstream of the pituitary-specific start site. In order to delineate the tissue-specific mechanisms governing the control of nonpituitary PRL gene expression, we have cloned and sequenced 3 kb 5'-flanking DNA of the upstream decidual/lymphoid (dPRL) promoter. Based on sequence homology we identified two binding motifs for Pit-1 and seven half-sites for glucocorticoid receptor/progesterone receptor (PR) binding. We focused our studies on the role of Pit-1 and of PR as potential transcriptional regulators, since the POU domain protein Pit-1 is essential in the control of pituitary PRL expression, and progesterone induces decidual transformation of the endometrial stroma, a differentiation process during which the decidual PRL gene is activated. We demonstrate in a variety of cell types, including lymphocytes and endometrial stroma, that Pit-1 is not involved in the regulation of dPRL promoter/reporter gene constructs carrying 3 kb 5'-flanking DNA. Our experiments also show that activated PR does not confer direct transcriptional control on the dPRL promoter. When we compared the activity of the transfected dPRL promoter in PRL-secreting and nonsecreting lymphoid cells, we found that the 3 kb 5'-flanking region of the dPRL promoter did not contain elements restricting expression to only those lymphocytes that produce PRL but allowed expression of **fusion** reporter genes irrespective of the status of the endogenous PRL gene. This was in sharp contrast to endometrial cells where 3 kb 5'-flanking DNA conferred strong transcriptional activation on the dPRL promoter in decidualized **endometrial stromal** cells actively secreting PRL, but did not allow transcription in undifferentiated non-PRL-secreting **endometrial stromal** cells. Activation of the dPRL promoter construct in these undifferentiated cells could however be induced by the addition of cAMP, in the absence of progesterone, suggesting that a signal transduced through the cAMP signaling pathway is a primary inducer of decidual PRL gene expression.

L10 ANSWER 4 OF 5 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 1999105752 MEDLINE
DOCUMENT NUMBER: 99105752 PubMed ID: 9890746
TITLE: Cadherin-11 is a hormonally regulated cellular **marker** of decidualization in human **endometrial stromal** cells.
AUTHOR: Chen G T; Getsios S; MacCalman C D
CORPORATE SOURCE: Department of Obstetrics and Gynecology, University of British Columbia, Vancouver, Canada.
SOURCE: MOLECULAR REPRODUCTION AND DEVELOPMENT, (1999 Feb) 52 (2) 158-65.
Journal code: 8903333. ISSN: 1040-452X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199904
ENTRY DATE: Entered STN: 19990426
Last Updated on STN: 19990426
Entered Medline: 19990415

AB Cultured human endometrial stromal cells respond to the gonadal steroids, progesterone and 17beta-estradiol, with morphological and biochemical changes that are characteristic of decidualization in vivo. To date, the cellular mechanisms involved in the terminal differentiation of human endometrial stromal cells into decidual cells remain poorly understood. We have recently determined that the novel cadherin subtype, known as cadherin-11, is expressed by endometrial stromal cells undergoing decidualization during the luteal phase of the menstrual cycle and the decidua of pregnancy. In these studies, we have examined cadherin-11 mRNA and protein expression levels in human endometrial stromal cells undergoing steroid-mediated decidualization in vitro. Progesterone or a combination of progesterone and 17beta-estradiol increased stromal cadherin-11 mRNA and protein expression levels with time in culture. Maximum levels of cadherin-11 expression in these cell cultures correlated with a marked increase in IGFBP-1 mRNA levels, a biochemical marker of decidualization. In contrast, 17beta-estradiol had no effect on stromal cad-11 mRNA and protein expression or the levels of the IGFBP-1 mRNA transcript. Taken together, these observations demonstrate that cadherin-11 mRNA and protein expression levels are up-regulated during the terminal differentiation of endometrial stromal cells-suggesting that this cell adhesion molecule may serve as a useful cellular marker for decidualization.

L10 ANSWER 5 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1990:367986 BIOSIS
DOCUMENT NUMBER: PREV199039052462; BR39:52462
TITLE: TENASCIN IS A **MARKER** FOR MALIGNANCY OF HUMAN **ENDOMETRIAL STROMAL** CELLS.
AUTHOR(S): VOLLMER G [Reprint author]; CARTER C A; KAUFMAN D G; KNUPPEN R
CORPORATE SOURCE: INST F BIOCHEM ENDOKRINOL, MED UNIV LUEBECK
SOURCE: Acta Endocrinologica Supplementum, (1990) Vol. 122, No. 1, pp. 130.
Meeting Info.: THIRTY-FOURTH SYMPOSIUM OF THE GERMAN SOCIETY OF ENDOCRINOLOGY, HANNOVER, WEST GERMANY, MARCH 14-17, 1990. ACTA ENDOCRINOL SUPPL.
CODEN: ACEDAB. ISSN: 0300-9750.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 11 Aug 1990
Last Updated on STN: 11 Aug 1990

L17 ANSWER 37 OF 38 CANCERLIT on STN
ACCESSION NUMBER: 88103969 CANCERLIT
DOCUMENT NUMBER: 88103969 PubMed ID: 3276210
TITLE: Antibody specific to muscle actins in the diagnosis and classification of soft tissue tumors.
AUTHOR: Miettinen M
CORPORATE SOURCE: Department of Pathology, University of Helsinki, Finland.
SOURCE: AMERICAN JOURNAL OF PATHOLOGY, **(1988 Jan)** 130 (1) 205-15.
Journal code: 0370502. ISSN: 0002-9440.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: MEDLINE; Abridged Index Medicus Journals; Priority Journals
OTHER SOURCE: MEDLINE 88103969
ENTRY MONTH: 198802
ENTRY DATE: Entered STN: 19941107
Last Updated on STN: 19941107

AB A series of soft tissue tumors, melanomas, carcinomas, and lymphomas were studied immunohistochemically for the presence of muscle actins (MA) with the monoclonal antibody HHF-35, and for the presence of desmin for comparison. In nonneoplastic tissues, MA immunoreactivity was present in skeletal and smooth muscle cells, in the pericytes of small vessels, and in the myoepithelial cells. Desmin immunoreactivity had a similar distribution, except that the pericytes of small vessels and myoepithelial cells were negative. All 17 rhabdomyosarcomas were positive for both MA and desmin. Of leiomyosarcomas, 31/32 were positive for MA, and 29/32 for desmin. In pleomorphic undifferentiated sarcomas (malignant fibrous histiocytomas) MA and desmin-positive cells were present in 9/35 and 5/35 cases, respectively. Three of five pleomorphic liposarcomas showed MA-positive tumor cells, which were also desmin-positive in one case. Desmoid tumors often showed a moderate number of both desmin- and MA-positive cells. Hemangiopericytoma, Kaposi's sarcoma, and **endometrial stromal** sarcoma showed MA-positive staining only in the pericytes and not in the neoplastic cells. In various types of carcinomas, melanomas, and lymphomas, MA- or desmin-positive neoplastic cells were not identified. MA, but not desmin, was present in the desmoplastic stroma in many carcinomas. Both MA and desmin are good markers for muscle differentiation and especially serve to identify rhabdomyosarcomas and leiomyosarcomas. These markers are also present in some sarcomas currently regarded as nonmuscle tumors. This may suggest that some of these tumors have differentiation properties related to true myosarcomas. The absence of muscle actin, a pericytic **marker**, in hemangiopericytoma does not confirm the concept of pericytic nature of this tumor.

L43 ANSWER 2 OF 6 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 93353912 MEDLINE
DOCUMENT NUMBER: 93353912 PubMed ID: 1307772
TITLE: C-**myc** gene expression in stage I endometrioid adenocarcinoma of the uterus.
AUTHOR: Ambros R A
CORPORATE SOURCE: Department of Pathology, Johns Hopkins Hospital, Baltimore, Maryland.
SOURCE: MATERIA MEDICA POLONA, (1992 Apr-Jun) 24 (2) 76-8.
Journal code: 0236526. ISSN: 0025-5246.
PUB. COUNTRY: Poland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ENTRY DATE: Entered STN: 19931001
Last Updated on STN: 19931001
Entered Medline: 19930916

AB Expression of a c-**myc** proto-oncogene product known as p62 (c-**myc**) was studied in 18 cases of stage I endometrioid (typical) adenocarcinoma of the uterus by immunohistochemistry and correlated with mucin production and other pathologic features. Cytoplasmic staining of tumor cells for c-**myc** product was seen in all cases and nuclear staining in three cases. **Endometrial stromal** cells were invariably negative and myometrial nuclear staining was seen in three cases. Within the tumor itself, whereas intense staining was frequent in high grade tumors with deep myometrial and vascular invasion, faint to moderate staining was frequent in well differentiated tumors with superficial myometrial invasion. A general tendency was also seen for greater staining in the myometrial component of the tumor than in tumor located in the endometrium. Whereas staining in the latter was frequently patchy in distribution, c-**myc** expression was invariably uniform in the myometrial component. Mucin production was somewhat greater in endometrial than myometrial components but did not correlate with c-**myc** expression or other pathologic features. This study demonstrates that c-**myc** is variably expressed in endometrial carcinoma and high c-**myc** expression can be associated with populations of tumor cells selectively capable of myometrial and vascular invasion.

L6 ANSWER 7 OF 7 CANCERLIT on STN
ACCESSION NUMBER: 88288267 CANCERLIT
DOCUMENT NUMBER: 88288267 PubMed ID: 3331171
TITLE: A novel tumour marker related to the c-myc oncogene product.
AUTHOR: Chan S; Gabra H; Hill F; Evan G; Sikora K
CORPORATE SOURCE: Department of Clinical Oncology, Royal Postgraduate Medical School, Hammersmith Hospital, London, UK.
SOURCE: MOLECULAR AND CELLULAR PROBES, **(1987 Mar)** 1 (1) 73-82.
Journal code: 8709751. ISSN: 0890-8508.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: MEDLINE; Priority Journals
OTHER SOURCE: MEDLINE 88288267
ENTRY MONTH: 198808
ENTRY DATE: Entered STN: 19941107
Last Updated on STN: 19941107

AB We have studied the utility of the c-myc oncogene product as tumour marker using a set of monoclonal antibodies raised against synthetic peptides constructed from sequence data of the human c-**myc** oncoprotein. One antibody, Myc1-**9E10**, raised against the C-terminal 32 amino acids, has been shown to detect specifically the 62 kDa c-myc gene product in tumour cells. Immunoblotting of sera and urine with this antibody consistently revealed a single 40 kDa band (p40). Quantitative analysis using dilution dot immunoblotting demonstrated a considerable increase in the titre of p40 in the sera of 51 patients with a wide range of advanced solid tumours when compared with 17 healthy controls and 50 patients with non-malignant diseases. Serial measurement of the p40 titre in 12 patients with resected colorectal carcinoma shows a gradual return to normal with a half-life of 7 days. Our data suggests that p40 may be a useful new marker for monitoring tumour activity.

L2 ANSWER 1 OF 1 MEDLINE on STN
ACCESSION NUMBER: 1999361598 MEDLINE
DOCUMENT NUMBER: 99361598 PubMed ID: 10432932
TITLE: Endometrial stromal sarcoma with clonal complex chromosome abnormalities. Report of a case and review of the literature.
AUTHOR: **Sonobe H**; Iwata J; Furihata M; Ohtsuki Y; Taguchi T; Shimizu K
CORPORATE SOURCE: Department of Pathology, Kochi Medical School, Japan.
SOURCE: CANCER GENETICS AND CYTOGENETICS, **(1999 Jul 1)** **112** (1) **34-7**. Ref: 17
Journal code: 7909240. ISSN: 0165-4608.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW OF REPORTED CASES)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199908
ENTRY DATE: Entered STN: 19990827
Last Updated on STN: 20020125
Entered Medline: 19990818

AB Only eleven endometrial stromal sarcomas (ESS) with clonal chromosomal abnormalities have been reported in the literature. Of these, four have been reported to harbor the t(7;17) translocation. We report here an additional ESS that exhibited clonal complex chromosome abnormalities not described earlier: 38,XX,-1,del(1)(q11),-2,add(2)(p13),-3,der(4)add(4)(p12)psu dic(4;14)(q35;q11.2), add(6)(p21.3),add(7)(q22),del(7)(p11.2p13),-8,-9,add(9)(q34),- 10,add(10)(q24),-11,-11,ins(12;?)(q13;?),-14,-14,-15,ins(15;?)(q22;?),add(16)(q22),add(17)(q11.2),-18,der(18)t(7;18)(q11.2;p11.2),-19, add(20)(p13),add(21)(p11.2),-22,add(22)(p11.2),+6mar in metaphase cells from primary short-term culture.

L15 ANSWER 9 OF 9 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2000169996 MEDLINE
DOCUMENT NUMBER: 20169996 PubMed ID: 10705818
TITLE: Paraffin-section detection of CD10 in 505 nonhematopoietic neoplasms. Frequent expression in renal cell carcinoma and endometrial stromal sarcoma.
AUTHOR: Chu P; Arber D A
CORPORATE SOURCE: Division of Pathology, City of Hope National Medical Center, Duarte, CA 91010, USA.
SOURCE: AMERICAN JOURNAL OF CLINICAL PATHOLOGY, (2000 Mar) 113 (3) 374-82.
Journal code: 0370470. ISSN: 0002-9173.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000330
Last Updated on STN: 20000330
Entered Medline: 20000323

AB We tested 505 cases of nonhematopoietic neoplasms by immunohistochemistry using a newly characterized monoclonal antibody (clone 56C6) against the CD10 antigen. CD10 was expressed widely in neoplasms of the genitourinary tract, including 41 (89%) of 46 cases of renal cell carcinoma, 13 (54%) of 24 cases of transitional cell carcinoma, and 11 (61%) of 18 cases of prostatic adenocarcinoma. In addition, 5 (100%) of 5 endometrial stromal sarcomas, 3 (60%) of 5 rhabdomyosarcomas, 7 (50%) of 14 pancreatic adenocarcinomas, 5 (45%) of 11 cases of schwannoma, and 12 (40%) of 30 cases of malignant melanoma also were positive for CD10. Similar to normal tissue, CD10 positivity was restricted to the apical surface of malignant glandular cells of well-differentiated colonic, pancreatic, and prostatic adenocarcinoma, whereas in poorly differentiated adenocarcinoma and other tumors, such as melanoma, transitional cell carcinoma, renal cell carcinoma, and **endometrial stromal** sarcoma, the **CD10** positivity showed diffuse cytoplasmic or membranous/Golgi patterns. The monoclonal antibody clone 56C6 is a reliable marker for CD10 in paraffin immunohistochemistry after heat-induced epitope retrieval. CD10 expression in renal cell carcinoma and endometrial stromal sarcoma may be a useful marker in the differential diagnoses of these tumors because both tumors otherwise lack specific markers.

L4 ANSWER 1 OF 1 MEDLINE on STN

ACCESSION NUMBER: 96127530 MEDLINE

DOCUMENT NUMBER: 96127530 PubMed ID: 8590280

TITLE: Prediction of the coding sequences of unidentified human genes. IV. The coding sequences of 40 new genes (KIAA0121-KIAA0160) deduced by analysis of cDNA clones from human cell line KG-1.

AUTHOR: **Nagase T**; Seki N; Tanaka A; Ishikawa K; Nomura N

CORPORATE SOURCE: Kazusa DNA Research Institute, Chiba, Japan.

SOURCE: DNA RESEARCH, **(1995 Aug 31) 2** (4) **167-74, 199-210**.
Journal code: 9423827. ISSN: 1340-2838.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

OTHER SOURCE: GENBANK-D50911; GENBANK-D50912; GENBANK-D50913; GENBANK-D50914; GENBANK-D50915; GENBANK-D50916; GENBANK-D50917; GENBANK-D50918; GENBANK-D50919; GENBANK-D50920; GENBANK-D50921; GENBANK-D50922; GENBANK-D50923; GENBANK-D50924; GENBANK-D50925; GENBANK-D50926; GENBANK-D50927; GENBANK-D50928; GENBANK-D50929; GENBANK-D50930; GENBANK-D50931; GENBANK-D63476; GENBANK-D63477; GENBANK-D63478; GENBANK-D63479; GENBANK-D63480; GENBANK-D63481; GENBANK-D63482; GENBANK-D63483; GENBANK-D63484

ENTRY MONTH: 199603

ENTRY DATE: Entered STN: 19960404
Last Updated on STN: 20000303
Entered Medline: 19960327

AB In this series of projects regarding the accumulation of sequence information of unidentified human genes, we newly deduced the sequences of 40 full-length cDNA clones of human cell line KG-1, and predicted the coding sequences of the corresponding genes, named KIAA0121 to 0160. The results of a computer search of public databases indicated that the sequences of 13 genes were unrelated to any reported genes, while the remaining 27 genes carried sequences which showed some similarities to known genes. Obvious unique sequences noted were as follows. A stretch of triplet repeats was contained in each of three genes: These were GAG(Glu) in KIAA0122 and KIAA0147, and TCC(Ser) in KIAA0150. A stretch of 10 amino acid-residues was repeated 21 times in KIAA0139, and a homologous sequence of 76-78 nucleotides was found repeated 6 times in the untranslated region of KIAA0125. Northern hybridization analysis demonstrated that 13 genes were expressed in a cell- or tissue-specific manner. Although a vast number of expressed sequence tags (ESTs) have been registered for comprehensive analysis of cDNA clones, our sequence data indicated that their distribution is very unbalanced: e.g. while no EST hit 7 genes, 85 ESTs fell in a single gene.

L40 ANSWER 36 OF 36 USPATFULL on STN
ACCESSION NUMBER: 2002:291062 USPATFULL
TITLE: Secreted protein HNFGF20
INVENTOR(S): Komatsoulis, George, Silver Spring, MD, United States
Rosen, Craig A., Laytonsville, MD, United States
Ruben, Steven M., Olney, MD, United States
Duan, Roxanne D., Bethesda, MD, United States
Moore, Paul A., Germantown, MD, United States
Shi, Yanggu, Gaithersburg, MD, United States
LaFleur, David W., Washington, DC, United States
Wei, Ying-Fei, Berkeley, CA, United States
Ni, Jian, Rockville, MD, United States
Florence, Kimberly A., Rockville, MD, United States
Young, Paul, Gaithersburg, MD, United States
Brewer, Laurie A., St. Paul, MN, United States
Soppet, Daniel R., Centreville, VA, United States
Endress, Gregory A., Potomac, MD, United States
Ebner, Reinhard, Gaithersburg, MD, United States
Olsen, Henrik, Gaithersburg, MD, United States
Mucenski, Michael, Cincinnati, OH, United States
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 6476195	B1	20021105		
APPLICATION INFO.:	US 2000-489847		20000124	(9)	<--

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 1999-US17130, filed on 29 Jul 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-94657P	19980730 (60)
	US 1998-95486P	19980805 (60)
	US 1998-96319P	19980812 (60)
	US 1998-95454P	19980806 (60)
	US 1998-95455P	19980806 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Goldberg, Jeanine
LEGAL REPRESENTATIVE: Human Genome Sciences, Inc.
NUMBER OF CLAIMS: 36
EXEMPLARY CLAIM: 1,7
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 20107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 2000-489847 20000124 (9) <--
DETD This gene is expressed primarily in **endometrial stromal** cells, **endometrial tumors**, keratinocytes, fetal tissue (e.g. liver, spleen) and to a lesser extent in endothelial cells and immune cells (e.g., T-cells).
DETD For example, c-**myc** expression is highly amplified in the non-lymphocytic leukemia cell line HL-60. When HL-60 cells are chemically induced to stop proliferation, the level of c-**myc** is found to be downregulated. (International Publication Number WO 91/15580) However, it has been shown that exposure of HL-60 cells to a DNA construct that is complementary to the 5' end of c-**myc** or c-myb blocks translation of the corresponding mRNAs which downregulates expression of the c-**myc** or c-myb proteins and causes arrest of cell proliferation and differentiation of the treated cells. (International Publication Number WO 91/15580;. . .
DETD For example, the use of c-**myc** and c-myb antisense RNA

constructs to inhibit the growth of the non-lymphocytic leukemia cell line HL-60 and other cell lines. . .

L33 ANSWER 10 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2002:291062 USPATFULL

TITLE: Secreted protein HNFGF20

INVENTOR(S): Komatsoulis, George, Silver Spring, MD, United States
Rosen, Craig A., Laytonsville, MD, United States
Ruben, Steven M., Olney, MD, United States
Duan, Roxanne D., Bethesda, MD, United States
Moore, Paul A., Germantown, MD, United States
Shi, Yanggu, Gaithersburg, MD, United States
LaFleur, David W., Washington, DC, United States
Wei, Ying-Fei, Berkeley, CA, United States
Ni, Jian, Rockville, MD, United States
Florence, Kimberly A., Rockville, MD, United States
Young, Paul, Gaithersburg, MD, United States
Brewer, Laurie A., St. Paul, MN, United States
Soppet, Daniel R., Centreville, VA, United States
Endress, Gregory A., Potomac, MD, United States
Ebner, Reinhard, Gaithersburg, MD, United States
Olsen, Henrik, Gaithersburg, MD, United States
Mucenski, Michael, Cincinnati, OH, United States

PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6476195	B1	20021105	
APPLICATION INFO.:	US 2000-489847		20000124 (9)	<--

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 1999-US17130, filed on 29 Jul 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-94657P	19980730 (60)
	US 1998-95486P	19980805 (60)
	US 1998-96319P	19980812 (60)
	US 1998-95454P	19980806 (60)
	US 1998-95455P	19980806 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Goldberg, Jeanine
LEGAL REPRESENTATIVE: Human Genome Sciences, Inc.
NUMBER OF CLAIMS: 36
EXEMPLARY CLAIM: 1,7
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 20107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AI US 2000-489847 20000124 (9) <--

DETD . . . hereby incorporated by reference herein). Additionally, it has been determined that this gene has homology to the human Kruppel related **zinc finger** protein (HTF10) which is known to be important as a transcription factor, particularly in development (See Genbank Accession No.L 11672).. . .

DETD The polypeptide of this gene has been determined to have a **zinc finger** (**Zinc finger**, C2H2 type) domain at about amino acid position 16-50 of the amino acid sequence referenced in Table 1 for this. . .

DETD `**Zinc finger**` domains are nucleic acid-binding protein structures first identified in the Xenopus transcription factor TFIIIA. These domains have since been found in numerous nucleic acid-binding proteins. A **zinc finger** domain is composed of 25 to 30 amino-acid residues. There are two cysteine or histidine residues at both extremities of. . . zinc atom. It has been

proposed that such a domain interacts with about five nucleotides. A schematic representation of a **zinc finger** domain is shown below: ##STR2##

DETD Many classes of **zinc fingers** are characterized according to the number and positions of the histidine and cysteine residues involved in the zinc atom coordination.. . . dependent DNA or RNA binding property of some members of this class. Some of the proteins known to include C2H2-type **zinc fingers** are listed below. We have indicated, between brackets, the number of **zinc finger** regions found in each of these proteins; a `+` symbol indicates that only partial sequence data is available and that. . .

DETD This gene is expressed primarily in **endometrial stromal** cells, **endometrial tumors**, keratinocytes, fetal tissue (e.g. liver, spleen) and to a lesser extent in endothelial cells and immune cells (e.g., T-cells).

DETD . . . gene between affected and unaffected individuals can be examined. First, visible structural alterations in the chromosomes, such as deletions or **translocations**, are examined in chromosome spreads or by PCR. If no structural alterations exist, the presence of point mutations are ascertained.. . .

DETD . . . product, or from the quantitative modification of gene expression by insertion into the chromosome of a viral sequence, by chromosomal **translocation** of a gene to a more actively transcribed region, or by some other mechanism. (Gelmann et al., supra) It is. . .

DETD . . . (Inovision Corporation, Durham, N.C.) Chromosome alterations of the genomic region hybridized by the probe are identified as insertions, deletions, and **translocations**. These alterations are used as a diagnostic marker for an associated disease.

L1 ANSWER 46 OF 46 GENBANK.RTM. COPYRIGHT 2001

LOCUS (LOC): **AK000711** GenBank (R)
GenBank ACC. NO. (GBN): **AK000711**
CAS REGISTRY NO. (RN): 256628-83-8
SEQUENCE LENGTH (SQL): 2425
MOLECULE TYPE (CI): mRNA; linear
DIVISION CODE (CI): Primates
DATE (DATE): 22 Feb 2000
DEFINITION (DEF): Homo sapiens cDNA FLJ20704 fis, clone KAIA1655.
KEYWORDS (ST): oligo capping; fis (full insert sequence)
SOURCE: Homo sapiens ileal mucosa cDNA to mRNA, clone_lib:kaia clone:KAIA1655.
ORGANISM (ORGN): Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini;
Hominidae; Homo
NUCLEIC ACID COUNT (NA): 777 a 429 c 423 g 796 t
COMMENT:
NEDO human cDNA sequencing project supported by Ministry of International Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology; cDNA library construction, 5'- & 3'-end one pass sequencing: Departent of Virology and Human Genome Center, Institute of Medical Science, University of Tokyo (partly supported by Science and Technology Agency).
REFERENCE: 1 (sites)
AUTHOR (AU): Tanigami,A.; Fujiwara,T.; Ono,T.; Yamada,K.; Fujii,Y.; Ozaki,K.; Hirao,M.; Ohmori,Y.; Ota,T.; Suzuki,Y.; Obayashi,M.; Nishi,T.; Shibahara,T.; Tanaka,T.; Nakamura,Y.; Isogai,T.; Sugano,S.
TITLE (TI): NEDO human cDNA sequencing project
JOURNAL (SO): Unpublished (2000)
REFERENCE: 2 (bases 1 to 2425)
AUTHOR (AU): Sugano,S.; Suzuki,Y.; Ota,T.; Obayashi,M.; Nishi,T.; Isogai,T.; Shibahara,T.; Tanaka,T.; Nakamura,Y.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (15-FEB-2000) to the DDBJ/EMBL/GenBank databases. Sumio Sugano, Institute of Medical Science, University of Tokyo, Deptment of Virology; Shirokane-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan (E-mail:cdna1@ims.u-tokyo.ac.jp, Tel:81-3-5449-5286, Fax:81-3-5449-5416)

FEATURES (FEAT):

Feature Key	Location	Qualifier
source	1..2425	/organism="Homo sapiens" /db-xref="taxon:9606" /clone="KAIA1655" /clone-lib="kaia" /tissue-type="ileal mucosa" /note="cloning vector pME18SFL3"

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    61 acagaacaca gattcgtgtc cgcaaaccat tcaagtgtcg ctgtgggaag agttacaaga
   121 cagctcaggg cctgcggcac cacacaatca atttccatcc cccggtgtcg gctgagatta
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 241 ttgctgattt tgaaaacagc cacctttttt caggggaagc attcagcaac cctttaaaga
 301 aaaagaatta aatgcatgct ttaaattttt tctgtaattt tggaatgatg tatctttgta
 361 gagttaatga ttttgtacat ttgcacatgt aatcatcata cccattttca ttactttgat
 421 ataaggtgct aaacaaaaaa agctctaggt tcttcagcac atttccccca aaacaaaata
 481 aaattgaggg catgttgcat attgttgaat tgtattgcgg tggtatcaac ctggggggag
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 901 ctattcagtt cgttcattca tttaacacac attgattgag tgcctgctgg gtacaaggga
 961 ttcaatttat gcctattgat atctgcggac caagataccc acttagtgaa atacttttt
1021 ccctgaaatc tgttagaaaa gactttgaaa tacttcagtg caaagtgtgt gtgtgtgaag
1081 tttagttata tcttcatctt cagatgaagt tttaaagcac tttgtagttc tctattgcca
1141 acaatttaat gtttatgtgt tgccaattct tgcaaccact gccctaccaa acctgtgggt
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1321 tgtagagagg tctgcattct cattggaaat gtctgtttag ctttataaaa caaacacttt
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1441 gaaaagcatg actaatacga cctattagag taatctacat ctggaccatt ccttaagttt
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1861 ctgaagtatg gtcttggtcc tgaatataca gtgttatcct atgtttaaaa gggtgatcca
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1981 tacaattgac caaaaaaaat tttttaggcc agcaattatt atttagcttc gctctttcta
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2101 tgtgcatgtt aaatttcttt cgatgctttc aaagataaat tccaatttct atttacttat
2161 tcattgtgac agtattacta aacaggtaag gatgggaata ttttgttata ctgtgtatag
2221 tgaatgtatt gtactgtgtc tgtgaaaact gtgctttaaa ttatattttc atatgttttg
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```

=>

L3 ANSWER 1 OF 1 GENBANK.RTM. COPYRIGHT 2001

LOCUS (LOC): **AI595264** GenBank (R)
GenBank ACC. NO. (GBN): **AI595264**
CAS REGISTRY NO. (RN): 230137-98-1
SEQUENCE LENGTH (SQL): 626
MOLECULE TYPE (CI): mRNA; linear
DIVISION CODE (CI): Expressed sequence tag
DATE (DATE): 15 Mar 2000
DEFINITION (DEF): ml44d05.y1 Stratagene mouse testis (#937308) Mus musculus cDNA clone IMAGE:514857 5' similar to SW:SFP1_YEAST P32432 ZINC FINGER PROTEIN SFP1. ;, mRNA sequence.
KEYWORDS (ST): EST
SOURCE: house mouse.
ORGANISM (ORGN): Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NUCLEIC ACID COUNT (NA): 163 a 187 c 155 g 118 t 3 others
COMMENT:
Contact: Marra M/WashU-NCI Mouse EST Project 1999
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
Tel: 314 286 1800
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Seq primer: -40RP from Gibco
High quality sequence stop: 408
POLYA=No.
REFERENCE: 1 (bases 1 to 626)
AUTHOR (AU): Marra,M.; Hillier,L.; Kucaba,T.; Martin,J.; Beck,C.; Wylie,T.; Underwood,K.; Steptoe,M.; Theising,B.; Allen,M.; Bowers,Y.; Person,B.; Swaller,T.; Gibbons,M.; Pape,D.; Harvey,N.; Schurk,R.; Ritter,E.; Kohn,S.; Shin,T.; Jackson,Y.; Cardenas,M.; McCann,R.; Waterston,R.; Wilson,R.
TITLE (TI): The WashU-NCI Mouse EST Project 1999
JOURNAL (SO): Unpublished (1999)

FEATURES (FEAT):

Feature Key	Location	Qualifier
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		/strain="Inbred CD-1"
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		/clone-lib="Stratagene mouse testis (#937308)"
		/sex="males"
		/tissue-type="testis"

/dev-stage="10-12 week old"
/lab-host="SOLR (kanamycin resistant)"
/note="Organ: testis; Vector: pBluescript SK-; Site-1: EcoRI; Site-2: XhoI; Cloned unidirectionally. Primer: Oligo dT. Average insert size: 1.0 kb; Uni-ZAP XR Vector; ~5' adaptor sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence: 5' CTCGAGTTTTTTTTTTTTTTT

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   361 ccccgcccat cacgccctcc tcttcattcc gcagcagcac tccaacaggc agcgagtatg
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   481 ccatcagctc tgaagcaatc ctcagnctca tgtgcatgaa tggaggggaa gagaagcctn
   541 tcgcctgccc agttccaggg tgtaaaaaga gatacaagaa tgtgaatggc atanagtacc
   601 atgctaagaa atgtcaccga acacag
```

=>

- Human
- Karyotyping
- Middle Age
- Sarcoma, Endometrial Stromal/*genetics/pathology

PMID: 10432932 [PubMed - indexed for MEDLINE]

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Concept Details

Endometrial Stromal Tumors

Neoplasms of the endometrial stroma that sometimes involve the MYOMETRIUM. These tumors contain cells that may closely or remotely resemble the normal stromal cells. Endometrial stromal neoplasms are divided into three categories: (1) benign stromal nodules; (2) low-grade stromal sarcoma, or endolymphatic stromal myosis; and (3) malignant endometrial stromal sarcoma (SARCOMA, ENDOMETRIAL STROMAL).

Related Concepts | View MeSH Information

Add to Search using Connector: AND or Cancel

- ☐ Main point of item
- ☐ Do not explode this term

With Subheadings: Subheading Definitions

- ☐ blood
- ☐ blood supply
- ☐ cerebrospinal fluid
- ☐ chemically induced
- ☐ chemistry
- ☐ classification
- ☐ complications
- ☐ congenital
- ☐ diagnosis
- ☐ diet therapy
- ☐ drug therapy
- ☐ economics
- ☐ embryology
- ☐ enzymology
- ☐ epidemiology
- ☐ ethnology
- ☐ etiology
- ☐ genetics
- ☐ history
- ☐ immunology
- ☐ metabolism
- ☐ microbiology
- ☐ mortality
- ☐ nursing
- ☐ parasitology
- ☐ pathology
- ☐ physiopathology
- ☐ prevention & control
- ☐ psychology
- ☐ radiography
- ☐ radionuclide imaging
- ☐ radiotherapy
- ☐ rehabilitation
- ☐ secondary
- ☐ secretion
- ☐ surgery
- ☐ therapy
- ☐ ultrasonography
- ☐ ultrastructure
- ☐ urine
- ☐ veterinary
- ☐ virology

MeSH Tree 1

- All MeSH Categories
  - Diseases (MeSH Category)
    - Female Genital Diseases and Pregnancy Complications
      - Genital Diseases, Female
        - Genital Neoplasms, Female
          - Uterine Neoplasms
            - Endometrial Neoplasms
              - Carcinoma, Endometrioid
              - **Endometrial Stromal Tumors**
                - Sarcoma, Endometrial Stromal

MeSH Tree 2

- All MeSH Categories
  - Diseases (MeSH Category)
    - Female Genital Diseases and Pregnancy Complications
      - Genital Diseases, Female
        - Uterine Diseases
          - Uterine Neoplasms
            - Endometrial Neoplasms
              - **Endometrial Stromal Tumors**
                - Sarcoma, Endometrial Stromal

MeSH Tree 3

- All MeSH Categories
  - Diseases (MeSH Category)
    - Female Genital Diseases and Pregnancy Complications
      - Genital Diseases, Female
        - Urogenital Diseases
          - Urogenital Neoplasms
            - Genital Neoplasms, Female
              - Uterine Neoplasms
                - Endometrial Neoplasms
              - Carcinoma, Endometrioid
              - **Endometrial Stromal Tumors**
                - Sarcoma, Endometrial Stromal

MeSH Tree 4

- All MeSH Categories
  - Diseases (MeSH Category)
    - Neoplasms
      - Neoplasms by Site
        - Urogenital Neoplasms
          - Genital Neoplasms, Female
            - Uterine Neoplasms
              - Endometrial Neoplasms
              - Carcinoma, Endometrioid
              - **Endometrial Stromal Tumors**
                - Sarcoma, Endometrial Stromal

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Related Articles

Endometrial stromal sarcoma presenting as postpartum haemorrhage: report of a case with a sole t(10;17)(q22;p13) translocation.

Leunen K, Amant F, Debiec-Rychter M, Croes R, Hagemeijer A, Schoenmakers EF, Vergote I.

Gynecol Oncol. 2003 Oct;91(1):265-71.

Division of Gynecological Oncology, Department of Obstetrics & Gynecology, University Hospitals Leuven, Belgium. frederic.amant@uz.kuleuven.ac.be

BACKGROUND: Although the clinical picture of endometrial stromal sarcoma (ESS) is variable, it was never reported to present as a postpartum hemorrhage. In addition, ESS is a tumor type of which, due to its rarity, little is known regarding chemosensitivity and genetic changes. CASE: A 28-year-old woman complaining of persistent postpartum bleeding was referred to our hospital, where she was diagnosed with ESS. At laparotomy, the invasion of nervous and vascular pelvic structures rendered her inoperable, and chemotherapy (doxorubicin 50 mg/m(2) for 15 min; ifosfamide 5 g/m(2)/24 h; mesna 5 g/m(2), every 3 weeks) was initiated. The ESS appeared to be chemosensitive because after three treatment cycles the tumor iliac metastase significantly decreased in volume and became surgically removable. Chemosensitivity was confirmed microscopically. Three additional courses of chemotherapy and pelvic irradiation were administered. Cytogenetic evaluation of both the primary as well as the metastatic lesions revealed a t(10;17)(q22;p13) as the sole cytogenetic abnormality. CONCLUSIONS: Three interesting features of this particular case put ESS in a new perspective. First, the fundal ESS permitted normal conception and pregnancy but caused a postpartum haemorrhage. Second, the ESS was clearly chemosensitive. Third, we report a novel cytogenetic aberration in

ESS, the molecular characterization of which might lead to the identification of the deregulated pathway(s) triggering tumor development in ESS.

MeSH Terms:

- Adult
- Case Report
- Chromosomes, Human, Pair 10/*genetics
- Chromosomes, Human, Pair 17/*genetics
- Combined Modality Therapy
- Diagnosis, Differential
- Endometrial Neoplasms/complications/diagnosis/*genetics/therapy
- Female
- Human
- Postpartum Hemorrhage/diagnosis/*etiology
- Sarcoma, Endometrial Stromal/complications/diagnosis/*genetics/therapy
- Support, Non-U.S. Gov't
- *Translocation (Genetics)

PMID: 14529693 [PubMed - indexed for MEDLINE]

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Journal Citations :

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Related Articles

A third case of a low-grade endometrial stromal sarcoma with a t(7;17)(p14 approximately 21;q11.2 approximately 21).

Hennig Y, Caselitz J, Bartnitzke S, Bullerdiek J.

Cancer Genet Cytogenet. 1997 Oct 1;98(1):84-6.

Center of Human Genetics and Genetic Counseling, University of Bremen, Germany.

Cytogenetic analysis of a low-grade endometrial stromal sarcoma of the uterus in a 52-year-old woman revealed the karyotype 46,XX,t(7;17)(p14 approximately 21;q11.2 approximately 21),der(7)t(7;16)(p14-15;q22)t(7;9) (q22;q22), der(9)t(7;9)(q22;q22),del(16)(q22). The t(7;17) was identical to an aberration observed in two other cases of endometrial stromal sarcomas, thus confirming the idea that it constitutes a non-random aberration for this type of tumor.

MeSH Terms:

- Adult
- Case Report
- *Chromosomes, Human, Pair 17
- *Chromosomes, Human, Pair 7
- Endometrial Neoplasms/*genetics
- Female
- Human
- Karyotyping
- Sarcoma, Endometrial Stromal/*genetics
- *Translocation (Genetics)

PMID: 9309124 [PubMed - indexed for MEDLINE]

Journal Citations :

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Related Articles
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Characterization of a newly established endometrial stromal sarcoma cell line.

Gunawan B, Braun S, Cortes MJ, Bergmann F, Karl C, Fuzesi L.

Int J Cancer. 1998 Jul 29;77(3):424-8.

Institute of Pathology, Medical Faculty of the Technical University of Aachen, Germany.

We describe a newly established human sarcoma cell line derived from an endometrial stromal sarcoma (ESS). The cell line has been maintained in long-term cell culture for more than 2 years. It has been repeatedly analyzed in terms of morphology, immunocytochemical features, ultrastructure and karyotypic characteristics. In contrast to uniform endometrial stromal differentiation in vivo, the tumor cells were shown to display distinct phenotypical heterogeneity in vitro. In addition to the predominant cell type, which retained sarcomatous differentiation, foci of epithelial-like cells were observed in the cell culture. Immunocytochemical and ultrastructural analysis demonstrated a mainly mesenchymal phenotype with signs of epithelial characteristics, such as expression of cytokeratins, and the presence of desmosomes and kinetocilia, respectively. Cytogenetic analyses in early and late passages revealed unbalanced translocations between chromosomes 3 and 6 and an additional i(19)(q10), as common karyotypic changes in all tumor cells, indicating a monoclonal origin. Our new cell line can be used as an in vitro model to study the mechanisms of heterogeneous differentiation patterns in ESS.

MeSH Terms:

- Aged
- Chromosome Mapping
- Chromosomes, Human, Pair 19

- Chromosomes, Human, Pair 3
- Chromosomes, Human, Pair 6
- Endometrial Neoplasms/genetics/*pathology/ultrastructure
- Epithelial Cells/pathology
- Female
- Human
- Immunohistochemistry
- Intermediate Filament Proteins/analysis
- Inversion (Genetics)
- Karyotyping
- Sarcoma, Endometrial Stromal/genetics/*pathology/ultrastructure
- Translocation (Genetics)
- Tumor Cells, Cultured

Substances:

- 0 (Intermediate Filament Proteins)

PMID: 9663606 [PubMed - indexed for MEDLINE]

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Journal Citations :

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Related Articles

Endometrial stromal tumors: an update on a group of tumors with a protean phenotype.

Oliva E, Clement PB, Young RH.

Adv Anat Pathol. 2000 Sep;7(5):257-81.

Department of Pathology, Harvard Medical School, Boston, Massachusetts, USA.

Endometrial stromal tumors are reviewed with emphasis on their wide morphologic spectrum and problems in differential diagnosis, highlighting issues that have received particular attention in the recent literature. These neoplasms are divided into two major categories--endometrial stromal nodules and endometrial stromal sarcomas--a distinction made on the basis of the lack of significant infiltration at the periphery of the former. The division of endometrial stromal sarcomas into low-grade and high-grade categories has fallen out of favor and the designation endometrial stromal sarcoma is now considered best restricted to neoplasms that were formally referred to as "low-grade" stromal sarcoma. Endometrial sarcomas without recognizable evidence of a definite endometrial stromal phenotype, designated poorly differentiated "endometrial sarcomas," are almost invariably high grade and often resemble the mesenchymal component of a malignant mullerian mixed tumor. Two features of endometrial stromal tumors that may cause confusion are smooth muscle differentiation and epithelial patterns. Cases in the former category often have a characteristic "starburst" pattern of collagen formation. The most common epithelial patterns resemble those seen in ovarian sex-cord stromal tumors. Much less common is endometrioid gland differentiation. Some endometrial stromal tumors have a prominent fibrous or myxoid appearance and the myxoid tumors should be

distinguished from myxoid leiomyosarcoma. Other unusual features of endometrial stromal tumors are also discussed. Lesions in the differential diagnosis of uterine endometrial stromal neoplasms include highly cellular leiomyoma, cellular intravenous leiomyomatosis, adenomyosis with sparse glands, metastatic carcinoma, and lymphoma. Endometrial stromal sarcomas at extrauterine sites may be primary or metastatic from a uterine tumor, the latter sometimes being occult and difficult to definitively establish, particularly if there is a history of a remote hysterectomy for "leiomyomas." Endometrial stromal sarcomas of the ovary, whether primary or metastatic, may be difficult to distinguish from ovarian sex-cord stromal tumors. Extragenital endometrial stromal sarcomas may be confused with diverse lesions such as gastrointestinal stromal tumors, hemangiopericytoma, lymphangiomyomatosis, or mesenchymal cystic hamartoma of the lung. Immunohistochemistry may play a role in evaluating these tumors and in some instances establishing the diagnosis although conventional light microscopic analysis suffices in the majority of cases. The unusual tumor, the "uterine tumor resembling an ovarian sex-cord tumor," is also considered in this review as it is almost certainly of endometrial stromal derivation in many cases. These neoplasms may have a striking resemblance to granulosa cell tumors or Sertoli cell tumors, including those with a retiform pattern, and have recently been shown to be frequently inhibin positive.

Publication Types:

- Review
- Review, Tutorial

MeSH Terms:

- Antigens, Neoplasm/analysis
- Diagnosis, Differential
- Endometrial Neoplasms/*pathology
- Female
- Human
- Immunohistochemistry
- Leiomyoma/pathology
- Myxosarcoma/pathology
- Neoplasm Metastasis
- Ovarian Neoplasms/pathology
- Ovary/pathology
- Sarcoma, Endometrial Stromal/*pathology
- Sex Cord-Stromal Tumor/pathology
- Smooth Muscle Tumor/pathology
- Uterine Neoplasms/*pathology
- Uterus/pathology

Substances:

- 0 (Antigens, Neoplasm)

PMID: 10976906 [PubMed - indexed for MEDLINE]

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Related Articles
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Expression of metalloproteinases endometrial stromal sarcoma: immunohistochemical study using image analysis.

Liokumovich P, Goldberg I, Davidson B, Gotlieb WH, Zahavi T, Ben-Baruch G, Reder I, Kopolovic J.

J Clin Pathol. 1999 Mar;52(3):198-202.

Department of Pathology, Sheba Medical Centre, Tel-Hashomer, Tel Aviv University, Israel.

AIM: To investigate the expression of matrix metalloproteinases (MMP), a group of proteolytic enzymes with a central role in extracellular matrix invasion and degradation, in stromal sarcomas. METHODS: 11 endometrial stromal sarcomas (four low grade tumours, seven high grade) were stained for MMP-2, MMP-3, and MMP-9 using immunohistochemical stains. The surgical material consisted of nine hysterectomy specimens and two pelvic recurrences. Three hysterectomy specimens, removed for leiomyomas, were studied as controls. Staining area was evaluated using image analysis. RESULTS: Age at the time of diagnosis ranged from 21 to 67 years. Four of the 11 patients (three with high grade tumours and one with a low grade tumour) died of the disease, six remained free of disease, and one was lost to follow up. Staining for MMP-2, MMP-3, and MMP-9 was more diffuse in high grade tumours than in low grade tumours and controls. Staining for MMP-3 and MMP-9 was more pronounced in high grade than in low grade tumours ($p = 0.04$; $p = 0.05$). Staining for MMP-9 was significantly greater in all stromal sarcomas than in controls ($p < 0.001$ for high grade tumours v controls; $p < 0.01$ for low grade tumours v controls). Diffuse staining for MMP-2, exceeding 90% of the tumour area, was observed in three of seven high grade tumours but in no low grade tumours. There was

no apparent correlation between staining for any of the three enzymes and survival. CONCLUSIONS: Both low and high grade endometrial stromal tumours express matrix metalloproteinases. MMP-3 and MMP-9 are expressed more diffusely in high grade than in low grade tumours. In the individual case, diffuse staining for MMP-2 appears to best characterise the high grade tumours. Thus staining for MMP-2 may aid in differentiating high grade from low grade tumours, and MMP-9 in differentiating normal endometrial stroma from low and high grade endometrial stromal sarcomas. MMP expression does not appear to predict disease outcome in endometrial stromal sarcoma.

MeSH Terms:

- Adult
- Aged
- Case-Control Studies
- Collagenases/analysis
- Endometrial Neoplasms/*enzymology/pathology
- Female
- Gelatinase A
- Gelatinase B
- Gelatinases/analysis
- Human
- Image Processing, Computer-Assisted
- Immunohistochemistry
- Metalloendopeptidases/*analysis
- Middle Age
- Neoplasm Proteins/*analysis
- Sarcoma, Endometrial Stromal/*enzymology/pathology
- Stromelysin 1/analysis

Substances:

- 0 (Neoplasm Proteins)
- EC 3.4.24 (Metalloendopeptidases)
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- EC 3.4.24.- (Gelatinases)
- EC 3.4.24.17 (Stromelysin 1)
- EC 3.4.24.24 (Gelatinase A)
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PMID: 10450179 [PubMed - indexed for MEDLINE]

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Related Articles

Endometrial low-grade stromal sarcoma with ovarian sex cord-like differentiation: report of two cases with an immunohistochemical and flow cytometric study.

Fukunaga M, Miyazawa Y, Ushigome S.

Pathol Int. 1997 Jun;47(6):412-5.

Department of Pathology, Jikei University School of Medicine, Tokyo, Japan.

Two cases of endometrial low-grade stromal sarcoma with ovarian sex cord-like differentiation occurring in a 39-year-old woman and a 42-year-old woman are presented. Both tumors, which were intramyometrial and measured 7.5 cm and 7.0 cm in greatest diameter, respectively, showed a multinodular, ill-demarcated, and yellowish white cut-surface. Histologically, most parts of the tumors were composed of trabecular, cord-like, or plexiform arrangements that were reminiscent of the growth pattern seen in ovarian sex cord tumors. Features of conventional endometrial low-grade stromal sarcoma were only focally observed. The tumors showed infiltrative margins and lymphatic invasion. The tumor cells were positive for vimentin, desmin, alpha-smooth muscle actin, and muscle actin (HHF35). The tumors were also positive for both estrogen and progesterone receptors. Both tumors were DNA diploid as determined by flow cytometry. One patient had recurrences, including osteolytic lesions in the pelvic bones, but had no evidence of recurrence or metastasis 11 months after the last surgery. The other patient had no evidence of tumor in a limited follow-up. Familiarity with the neoplasm and other uterine mesenchymal tumors with ovarian sex cord-like differentiation by gynecologists and pathologists is essential in avoiding misdiagnosis because adjuvant hormonal therapy may be

effective in treating low-grade stromal sarcomas.

MeSH Terms:
- Adult
- Case Report
- Desmin/analysis
- Diagnosis, Differential
- Endometrial Neoplasms/chemistry/*pathology
- Female
- Flow Cytometry
- Human
- Immunohistochemistry
- Ovarian Neoplasms/chemistry/*pathology
- Receptors, Progesterone/analysis
- Sarcoma, Endometrial Stromal/chemistry/*pathology
- Sex Cord-Stromal Tumor/chemistry/*pathology

Substances:
- 0 (Desmin)
- 0 (Receptors, Progesterone)

PMID: 9211530 [PubMed - indexed for MEDLINE]

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Frequent fusion of the JAZF1 and JJAZ1 genes in endometrial stromal tumors.

Koontz JI, Soreng AL, Nucci M, Kuo FC, Pauwels P, van Den Berghe H, Cin PD, Fletcher JA, Sklar J.

Proc Natl Acad Sci U S A. 2001 May 22;98(11):6348-53.

Division of Molecular Oncology, Department of Pathology, Brigham and Women's Hospital and Harvard Medical School, Boston, MA 02115, USA.

Endometrial stromal tumors are divided into three types: benign stromal nodules, endometrial stromal sarcomas, and undifferentiated endometrial sarcomas. A variety of cytogenetic abnormalities involving chromosome 7 have been reported in endometrial stromal sarcomas, including a recurrent t(7;17)(p15;q21). We have identified two zinc finger genes, which we have termed JAZF1 and JJAZ1, at the sites of the 7p15 and 17q21 breakpoints. Analyses of tumor RNA indicate that a JAZF1/JJAZ1 fusion is present in all types of endometrial stromal tumors; however, the fusion appears to be rarer among endometrial stromal sarcomas that would be considered high-grade according to certain classification schemes. These findings suggest that the less malignant endometrial stromal tumors may evolve toward more malignant types, but that some endometrial stromal sarcomas with relatively abundant mitotic activity may compose a biologically distinct group.

MeSH Terms:

- Amino Acid Sequence
- Base Sequence
- Blotting, Southern/methods
- Chromosomes, Artificial, Bacterial
- Chromosomes, Artificial, Yeast

- *Chromosomes, Human, Pair 17
- *Chromosomes, Human, Pair 7
- DNA, Neoplasm
- Endometrial Neoplasms/*genetics/pathology
- Female
- *Gene Fusion
- Human
- Middle Age
- Molecular Sequence Data
- Neoplasm Proteins/*genetics
- Sarcoma, Endometrial Stromal/*genetics/pathology
- Support, Non-U.S. Gov't
- Support, U.S. Gov't, P.H.S.
- *Translocation (Genetics)

Substances:

- 0 (Chromosomes, Artificial, Bacterial)
- 0 (Chromosomes, Artificial, Yeast)
- 0 (DNA, Neoplasm)
- 0 (JAZF1 protein)
- 0 (JJAZ1 protein)
- 0 (Neoplasm Proteins)

Grant Support:

- CA-85995/CA/NCI

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